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Space engineering - Reference coordinate system

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/14

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Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

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ICS 49.140

English version

## Space engineering - Reference coordinate system

Ingénierie spatiale - Système de coordonnées de référence

Raumfahrttechnik - Bezugskordinatensystem

This European Standard was approved by CEN on 28 December 2013.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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## Foreword

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This document (EN 16603-10-09:2014) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16603-10-09:2014) originates from ECSS-E-ST-10-09C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been developed to cover specifically space systems and has therefore precedence over any EN covering the same scope but with a wider domain of applicability (e.g. : aerospace).

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom."

## Introduction

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Clear definition of reference directions, coordinate systems and their inter-relationships is part of the System Engineering process. Problems caused by inadequate early definition, often pass unnoticed during the exchange of technical information.

This Standard addresses this by separating the technical aspects from the issues connected with process, maintenance and transfer of such information. Clause 4 provides some explanation and justification, applicable to all types of space systems, missions and phases. Clause 5 contains the requirements and recommendations. Helpful and informative material is provided in the Annexes.

# 1

## Scope

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The objective of the Coordinate Systems Standard is to define the requirements related to the various coordinate systems, as well as their related mutual inter-relationships and transformations, which are used for mission definition, engineering, verification, operations and output data processing of a space system and its elements.

This Standard aims at providing a practical, space-focused implementation of Coordinate Systems, developing a set of definitions and requirements. These constitute a common reference or “checklist” of maximum utility for organising and conducting the system engineering activities of a space system project or for participating as customer or supplier at any level of system decomposition.

This standard may be tailored for the specific characteristics and constraints of a space project in conformance with ECSS-S-ST-00.



**2****Normative references**

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The following normative documents contain provisions which, through reference in this text, constitute provisions of this ECSS Standard. For dated references, subsequent amendments to, or revisions of any of these publications, do not apply. However, parties to agreements based on this ECSS Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references the latest edition of the publication referred to applies.

<b>EN reference</b>	<b>Reference in text</b>	<b>Title</b>
EN 16601-00-01	ECSS-S-ST-00-01	ECSS system– Glossary of terms
EN 16601-10	ECSS-M-ST-10	Space project management – Project planning and implementation

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**